Functional Cognition in Value Based Care: Why OT Must Lead Earlier Identification and Intervention

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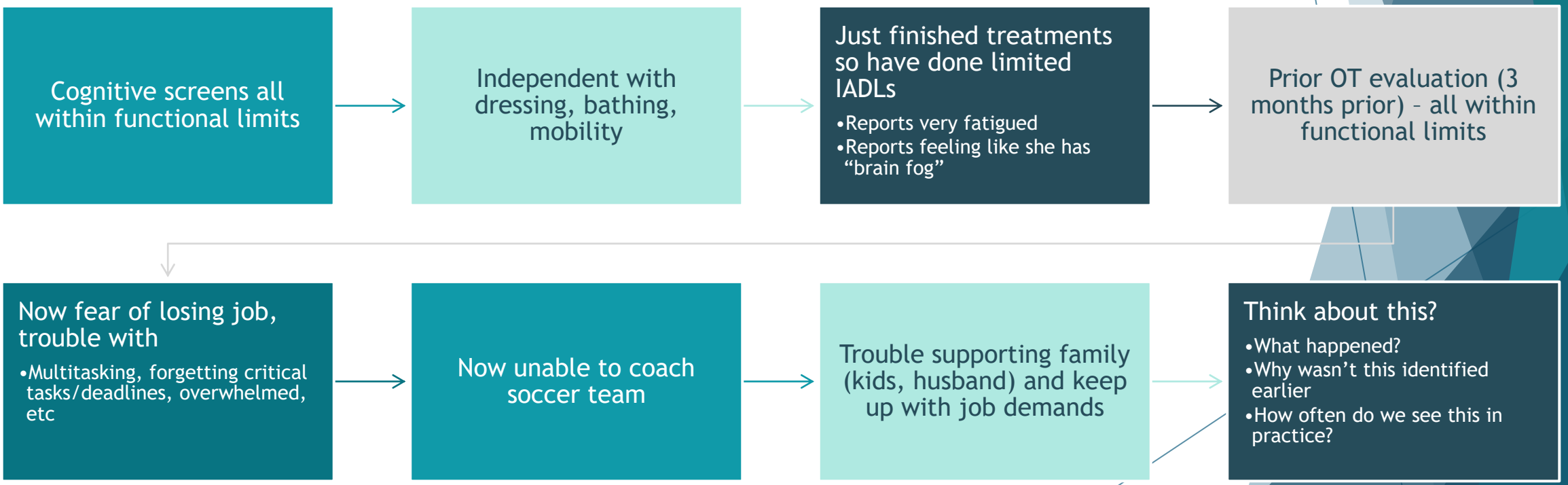


Learning Objectives

Participants will:

- Define functional cognition and it's relationship to participation.
- Recognize why subtle cognitive changes are frequently missed.
- Identify functional cognitive red flags across practice settings.
- Connect functional cognition to value-based care outcomes.
- Apply practical strategies for earlier OT identification and intervention.
- Advocate for OTs leadership role within interdisciplinary teams.

AOTA, 2025
Giles, 2020
Berwick et al., 2008

Why This Matters

The Cost is..

- Loss of income - Loss of jobs or early retirement
- Loss of confidence
- Care partner burnout
- Safety risk

Evidence
Mild cognitive changes frequently go undetected because traditional cognitive screening measures do not adequately assess performance during complex everyday occupations or under real-world demands. *(Giles, 2020; Wolf et al., 2020; AOTA, 2021)*

Giles, 2020
Berwick et al., 2008

What is Functional Cognition

Functional Cognition = How people USE thinking skills in real-life tasks

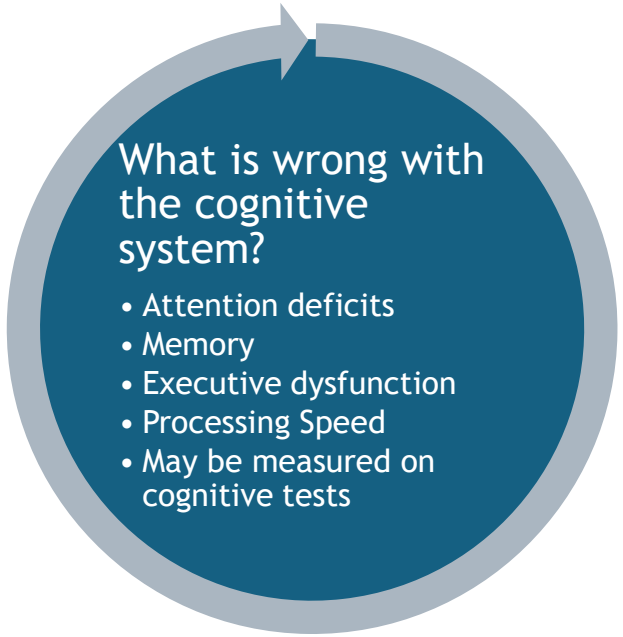
Cognition drives every occupation: self-care, home management, work, social life, community engagement, etc.

Evidence
Functional cognition reflects the integration of cognitive abilities with occupational performance in everyday contexts rather than isolated cognitive skills.
(Giles & Edwards, 2018; AOTA, 2025)

Giles & Edwards, 2018
AOTA, 2025

Cognitive Impairment Vs. Functional Impairment

Cognitive Impairment



Functional Impairment

What is happening in everyday life?

- Misses important details at work
- Forgets medications and/or appointments
- Cannot manage complex tasks
- Falls behind on conversations or work demands
- Seen in real-world performance

Baum et al., 2008
Toglia, 2018
Wolf et al., 2020

Functional Cognition = Thinking in Action

- The Ability to:
- Manage Medications
- Follow routines
- Prioritize tasks
- Solve problems
- Adapt to changing situations
- Complete daily activities successfully

Giles, 2020
AOTA, 2025

Participation Impact

Challenges with:

- Returning to work
- Parenting
- Managing appointments
- Driving
- Household management
- Social engagement

Evidence
Participation restrictions often emerge before significant impairment is identified on standardized cognitive assessments. *(WHO, 2001; Janelsins et al.; Smallfield et al., 2024)*

WHO, 2001 (ICF)
AOTA, 2025
Law et al., 1996 (PEO Model)

The Invisible Disability Problem

- They look good
- Basically getting through day to day
- Some expectation to be tired after treatments
- Recently finished treatments
- Sudden changes of supports

Janelsins et al.
Von Ah et al.
Smallfield et al., 2024

Clinical/Environmental vs Real-Life Limitations

Clinical Environmental Limitations

- Quiet
- Structured
- Predictable
- Minimal distractions

Real Life Limitations

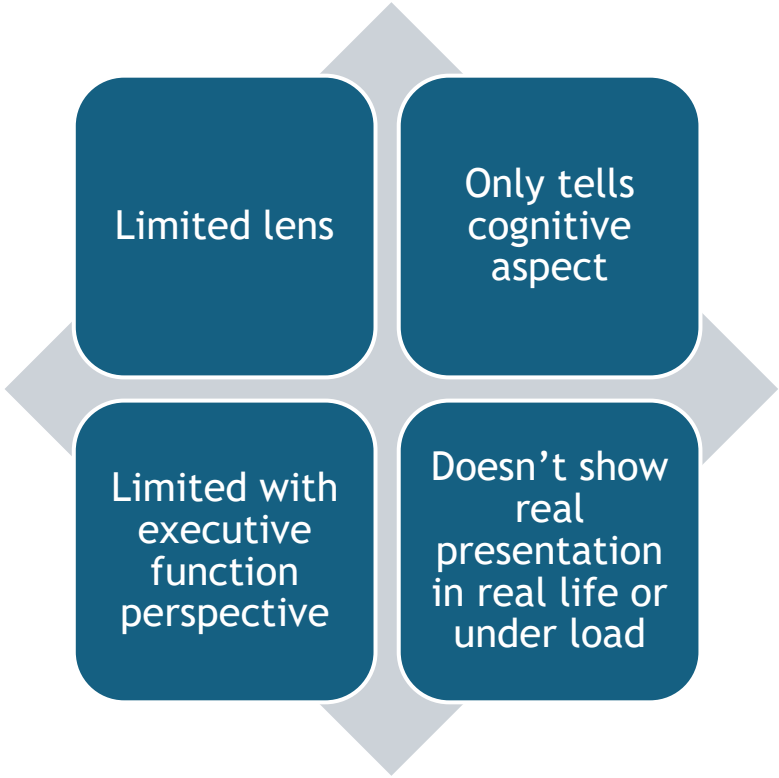
- Busy
- Demanding
- Multi-tasking
- Fatiguing

Evidence
Performance observed in structured clinical environments may not predict success in complex real-world environments that require multitasking, divided attention, and executive functioning.
(Baum et al., 2008; Toglia, 2018)

Toglia, 2018
Baum et al., 2008
Giles, 2020

Why Standard Screens Miss Problems

- MoCA
- Slums
- Mini Cog



Evidence
Screening tools identify cognitive impairment but often fail to evaluate executive function during meaningful occupations.
(Baum et al., 2008; Giles, 2020; Wolf et al., 2020)

Cognitive Challenges Show Up Under Load

- Fatigue
- Lack of sleep
- Distractions
- Time Pressure
- Multitasking

Evidence
Fatigue, multitasking, environmental distractions, and time pressure substantially increase cognitive demands and often reveal impairments **not evident during testing.**
(Cicerone et al., 2019; Toglia, 2018; Janelsins et al.)

Toglia, 2018
Cicerone et al., 2019
Janelsins et al.

Poll Question

Have you had patients tell you they are fine in therapy but struggling at home or work?

What is Value-Based Care?

Value based care is a healthcare delivery model that rewards improved patient outcomes, quality, participation, and efficient use of healthcare resources rather than volume of services provided

$$\text{Value} = \frac{\text{Outcomes that matter to patients}}{\text{Cost of care}}$$

Evidence
Value is achieved when outcomes that matter to patients improve relative to the cost of delivering care.
(Porter, 2010)

Porter, 2010
Berwick et al., 2008

What Outcomes Matter

Traditional Focus

- Number of visits
- Impairment scores
- Completion of treatment
- Productivity metrics
- Short-term gains

Value-Based Focus

- Meaningful outcomes
- Daily function
- Participation in life
- Patient experience
- Long-term independence

Porter, 2010
WHO, 2001
AOTA, 2025

Missed Functional Cognition Changes Can Lead to

Increased medication errors	Poor self-management
Safety risks	Reduced work performance/return to work challenges
Increased caregiver burden	Decreased participation and independence

- Reduced quality of life -> higher healthcare utilization & costs

Evidence
Cognitive impairment is associated with medication errors, decreased self-management, caregiver burden, reduced participation, and increased healthcare utilization.
(AOTA, 2021; Cicerone et al., 2019; Berwick et al., 2008)

Functional Cognition is a Value Driver

SAFETY

- Medication management
- Driving decision
- Fall prevention
- Injury prevention (neuropathy)

SELF-MANAGEMENT

- Appointments
- Health literacy
- Following treatment plans

PARTICIPATION

- Work
- School
- Family roles
- Hobbies/leisure
- Social

HEALTHCARE UTILIZATION

- Reduced complications
- Reduced caregiver burdens
- Reduced avoidable readmissions

Evidence
Improving functional cognition supports safer self-management, greater participation, and reduced downstream healthcare costs.
(Porter, 2010; WHO, 2001; Smallfield et al., 2024; AOTA 2025)

Why OT Should Lead

OT evalutes performance where value is created:

- Real life activities
- Daily routines
- Executive function load
- Participation in meaningful roles

Evidence
Occupational therapists are uniquely qualified to evaluate cognition through occupational performance, making functional cognition a natural extension of OT's distinct value.
(AOTA, 2025; Giles & Edwards, 2018; Giles, 2020)

AOTA, 2025
Giles & Edwards, 2018
Wolf et al., 2020

Why OT is Essential

OT evaluates:

- Real-world performance
- Habits & routines
- Environmental demands
- Participation outcomes

This positions OT uniquely within value - based care models

AOTA, 2025
WHO, 2001

What Populations/Areas of Practice Does This Impact

Oncology

- Cancer related cognitive impairment (CRCI)
- Return to work challenges
- Medication management
- Role/household management

Neurological conditions

- Stroke
- TBI
- Parkinson's
- MS

Older adults

- Early cognitive decline
- Mild cognitive impairment
- Driving safey

Mental health

- Executive dysfunction
- Cognitive overload

Smallfield et al., 2024
Cicerone et al., 2019
National Academies, 2021

What Should We Look For?

Red flags

- Missed appointments
- Repeated questions
- Difficulty following conversations
- Task initiation problems
- Medication mistakes/errors
- Overwhelm with complex tasks
- Return to work struggles

AOTA, 2021
Baum et al., 2008

Assessment Toolbox

Brief overview

- Occupational profile – should be an eval
- Functional interviews
- Observations during occupations

Functional Questions to Ask

- What has become harder?
- What takes longer?
- What do you avoid now?
- What feels more exhausting?

Baum et al., 2008
Toglia, 2018
AOTA, 2021

Value-Based Care Is

Evidence
Patient-centered healthcare increasingly emphasizes functional outcomes, participation, quality of life, and prevention rather than volume of services.
(Porter, 2010; Berwick et al., 2008)

Value based care isn't about doing more. It's about targeting what matters most…

Recognize	Understand	Intervene	Participation	Value

Occupational therapy creates value when intervention improves participation in everyday life – not simply test performance

Porter, 2010
Berwick et al., 2008
WHO, 2001

Functional Cognition Gives Us Multiple Intervention Targets

Targets	Examples
Awareness	Helping patients recognize cognitive challenges BEFORE errors occur
Routines/Daily Strategies	External memory systems, routines, checklists
Environment	Reduce distractions, simplify work flow
Executive Function	Planning, prioritization, sequencing, initiation
Energy & Cognitive Fatigue	Pacing, scheduling, breaks
Participation	Work, driving, household management, parenting, social life

Evidence
Evidence supports occupation-based cognitive rehabilitation interventions that integrate strategy training, environmental modification, executive functioning, and real-world practice.
(Cicerone et al., 2019; Wolf et al., 2020; Smallfield et al., 2024)

Cicerone et al., 2019
Wolf et al., 2020
Smallfield et al., 2024

What Makes OT Different

Instead of asking…

- “Can they remember 5 words?”

Occupational Therapy Practitioners ask..

- Can they manage medications
- Can they organize their workday
- Can they complete morning routines
- Can they return to work
- Can they return to parenting role confidently
- Can they participate in meaningful occupations/leisure/hobbies like they used to.

Participation is our outcome measure.

Evidence
Occupational therapy differs from traditional cognitive assessment by emphasizing participation, occupational performance, habits, routines, and environmental context.
(AOTA, 2025; Giles, 2020)

Intervention

- Awareness
- Strategy development
- Practice in real activities
- Modify environment
- Build sustainable habits
- Improve participation

Toglia, 2018
Cicerone et al., 2019
Wolf et al., 2020

Remember our Case Example?

- Patient
  - Breast cancer survivor
  - Returned to work (high executive functioning type position)
  - Normal cognitive screening
  - Increasing mistakes
  - Fatigue every afternoon
  - Losing confidence

Assessment	Identified
• Interview • OT profile • Functional observations • Cognitive testing under demand • Work analysis	• Slowed processing • Divided attention difficulty • Fatigue (cognitive and physical) • Executive function breakdown

Case Continued…

Barriers	OT Intervention
Fatigue	Pacing/Activity-rest
Missed deadlines	Visual workflow, planner, 3 priorities
Information overload	External Memory strategies/capture system
Prioritization	Daily planning, routines
Interruptions	Environmental modifications
Confidence	Education and graded success

Participation Outcomes

- Before OT
  - Working late/not as productive
  - Missed deadline
  - Increased stress
  - Considering leaving job
- After OT
  - Managing workload/less errors
  - Completing workday on time
  - Reduced cognitive fatigue
  - Increased confidence
  - Maintaining employment
  - Returned to coaching soccer

WHO, 2001
AOTA, 2025

This is Value-Based Care

- When OT helps someone safely manage meds, stay employed, avoid a fall, or continue participating in the life they value, we are demonstrating value –not just providing treatment

Traditional Focus	Functional Focus
Symptoms	Participation
Impairments	Everyday performance
Scores	Functional Outcomes
Episodes of Care	Long-term Success
Healthcare Utilization	Quality of Life

Evidence
Improving participation is one of the strongest indicators that healthcare has produced meaningful value for patients.
(WHO, 2001; Porter, 2010)

Porter, 2010
Berwick et al., 2008
WHO, 2001

OT Leadership & Advocacy

OT understands

- Occupation
- Participation
- Context
- Performance Patterns

Opportunities for leadership

- Educate teams
- Create referral pathways
- Develop screening processes
- Collect outcome data
- Advocate for early referral

Functional Cognition is often the missing link between impairment and participation

Functional cognition is the bridge between cognitive capacity and occupational performance.
— Giles & Edwards (2018)

AOTA, 2025
Giles, 2020
AOTA, 2021

Questions, Discussions, and Action Planning

Reflection Questions

- What subtle cognitive challenges are being missed in your setting?
- What red flags could your team identify sooner?
- What is one change you can implement next week?

Your OT Home Program

Identify

- One patient you may view differently tomorrow or next workday
- One way to advocate for OT's role in functional cognition and value-based care

Final Thought…

Remember...

Functional cognition is **where thinking meets doing.**

When we assess cognition through meaningful occupations, we reveal challenges that standardized testing alone may miss.

Occupational therapy is uniquely positioned to bridge the gap between impairment and participation.

— **Karen Johnson, MOT, OTR/L**